



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,064	08/17/2001	Satoshi Arakawa	Q63766	2592

7590 05/03/2004  
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037-3213

EXAMINER

LEE, SHUN K

ART UNIT PAPER NUMBER

2878

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/931,064	ARAKAWA, SATOSHI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shun Lee	2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 January 2004 and 06 February 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation of “ a lid openably and closably mounted on the container”. Claim 14 (which depends from claim 1) recites the limitation of “a user opens and closes said lid by removing and replacing said lid”. It should be noted that claims 1 and 14 are directed to an apparatus. Thus dependent claim 14 is vague and indefinite since it is unclear what if any structure is imparted to the apparatus by the actions of a user.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 7-11, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa *et al.* (US 6,365,909) in view of Torii (US 4,810,874).

In regard to claims 1 and 9-11, Hayakawa *et al.* disclose (Figs. 1, 4, and 19) an image information reading apparatus comprising:

- (a) a support table (4) for placing thereon a stimuable phosphor sheet (12) with radiation image information recorded therein;
- (b) displaceable stimulating light applying means (510, 511, 512, 513) for applying stimulating light to the stimuable phosphor sheet (12);
- (c) displaceable light collecting means (514) for collecting light which is emitted from said stimuable phosphor sheet (12) upon exposure to said stimulating light; and
- (d) a photoelectric transducer mechanism (514a) for converting the collected light to an electric signal;

the arrangement being such that while said stimulating light applying means (510, 511, 512, 513) is facing and being displaced with respect to said stimuable phosphor sheet (12), said stimulating light applying means (510, 511, 512, 513) applies said stimulating light to said stimuable phosphor sheet (12), and while said light collecting means (514) is being displaced with respect to said stimuable phosphor sheet (12), said light collecting means (514) collects light emitted from said stimuable phosphor sheet (12) and reads radiation image information from the collected light.

The apparatus of Hayakawa *et al.* lacks that the stimuable phosphor sheet is housed in a container comprising a container casing having a groove defined therein is exposed to stimulating light when a openably, closably, and removably mounted container lid having a side edge slidably fitted in the groove and a tab projecting from a side edge thereof is opened. However, stimuable phosphor cassettes are well known in the art. For example, Torii teaches (Figs. 1-3) that a stimuable phosphor cassette comprising a

lid (3B) having a tab projecting from a side edge thereof and slidably fitted into a container casing (3A), in order to perform read-out without removing the sheet from the cassette so as to minimized scratches and damage (column 2, lines 18-33). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a lid having a tab and slidably fitted into a container casing as the stimuable phosphor cassette in the apparatus of Hayakawa *et al.*, in order to perform read-out without removing the sheet from the cassette so as to minimized scratches and damage as taught by Torii.

In regard to claim 4 which is dependent on claim 1, Hayakawa *et al.* also disclose (column 20, line 28 to column 21, line 48) a lifting and lowering mechanism for lifting and lowering said support table (4).

In regard to claim 2 (which is dependent on claim 1) and claim 7 (which is dependent on claim 4), Hayakawa *et al.* also disclose (Figs. 1, 13, and 19) that said stimulating light applying means (510, 511, 512, 513) and said light collecting means (514) are coupled to each other (in image reading section 5) for displacement in unison with each other.

In regard to claim 3 (which is dependent on claim 2) and claim 8 (which is dependent on claim 7), Hayakawa *et al.* also disclose (Figs. 13, 18, and 19) a displacing mechanism for displacing said stimulating light applying means (510, 511, 512, 513) and said light collecting means (514), said displacing mechanism comprising a ball screw (501) operatively connected to said stimulating light applying means (510, 511,

512, 513) and said light collecting means (514) and a motor (502) for rotating said ball screw (501) about its own axis.

In regard to claim **17** (which is dependent on claim 1) and claim **18** (which is dependent on claim 4), Hayakawa *et al.* also disclose (Fig. 25) that said support table (4) functions in a substantially horizontal manner (*i.e.*, horizontal orientation).

5. Claims 5, 6, 15, 16, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa *et al.* (US 6,365,909) in view of Torii (US 4,810,874) as applied to claim 4 above, and further in view of Schneider *et al.* (US 4,965,455).

In regard to claims **5**, **6**, **15**, and **16** which are dependent on claim 4, the modified apparatus of Hayakawa *et al.* lacks that said lifting and lowering mechanism comprises a plurality of support shafts rotatably mounted on a base and operatively connected to said support table and a plurality of motors for rotating said support shafts respectively about their own axes to lift and lower said support table, and that said motors have respective rotatable shafts with respective worms fitted thereover, said support shafts supporting respective worm gears fitted thereover and held in mesh with said respective worms, whereby said support shafts can be rotated about their own axes by said worms and said worm gears when said motors are simultaneously energized. However, translation stages are well known in the art. For example, Schneider *et al.* teach (column 5, lines 42-49) that belts, chains, worm drives, or rack drives are functional translation stage equivalents. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to provide worm drives as the lifting

and lowering mechanism in the modified apparatus of Hayakawa *et al.* as functional equivalents to the conveyance belts of Hayakawa *et al.*

In regard to claim **20** which is dependent on claim 15, Hayakawa *et al.* is applied as in claim 17 above.

6. Claims 12, 13, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa *et al.* (US 6,365,909) in view of Torii (US 4,810,874) as applied to claim 1 above, and further in view of Watanabe (US 4,733,307).

In regard to claims **12** and **13** which are dependent on claim 1, the modified apparatus of Hayakawa *et al.* lacks that the light collecting means and the stimulating light applying means are displaceable by separate displacement mechanisms, wherein each said separate displacement mechanism comprises a motor that is energizable in synchronism with each motor of other said separate displacement mechanisms. Watanabe teaches (column 18, lines 5-63) to provide separate displacement motors instead of a single motor in order to obtain a desired movement plane angle. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to provide separate displacement motors in the modified apparatus of Hayakawa *et al.*, in order to obtain a desired movement plane angle as taught by Watanabe.

In regard to claim **19** which is dependent on claim 12, Hayakawa *et al.* is applied as in claim 17 above.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa *et al.* (US 6,365,909) in view of Torii (US 4,810,874) as applied to claim 1 above, and further in view of Heffelfinger *et al.* (US 6,043,506).

In regard to claim 14 which is dependent on claim 1, the modified apparatus of Hayakawa *et al.* lacks that a user opens and closes said lid by removing and replacing said lid. Heffelfinger *et al.* teach (column 12, lines 16-54) that a user can temporarily position a cover (*i.e.*, lid) in order to shield external light sources from a storage phosphor plate (*i.e.*, stimuable phosphor sheet). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention that a user can open and close the lid in the modified apparatus of Hayakawa *et al.* as needed, in order to shield external light sources from the stimuable phosphor sheet as taught by Heffelfinger *et al.*

### ***Response to Arguments***

8. Applicant's arguments filed 7 January 2004 have been fully considered but they are not persuasive.

Applicant argues (pg. 9-12 of remarks filed 7 January 2004) that a support table for placing thereon a container which houses a stimuable phosphor is absolutely absent from the device of Hayakawa *et al.* since Hayakawa *et al.*'s vertical plate holding section 4 acts as a vertical hanging device for securing phosphor plates in a vertical direction, so that the plates may be scanned and read. Examiner respectfully disagrees. It should be noted that a particular orientation of the support table was not recited in original claims 1-11. Moreover, Hayakawa *et al.* explicitly discloses (Fig. 25) a support



table (4) which is oriented in a horizontal direction (*i.e.*, perpendicular to the vertical direction).

In response to applicant's arguments (second and third paragraphs on pg. 10 of remarks filed 7 January 2004) against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument (last paragraph on pg. 11 of remarks filed 7 January 2004) that it would not be obvious to combine the vertical orientation of Hayakawa *et al.* with the horizontal cartridge structure of Torii, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Moreover as discussed above, Hayakawa *et al.* explicitly discloses a horizontal orientation.

### **Conclusion**

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shun Lee whose telephone number is (571) 272-2439. The examiner can normally be reached on Monday-Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/931,064  
Art Unit: 2878

Page 10

SL



DAVID PORTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800